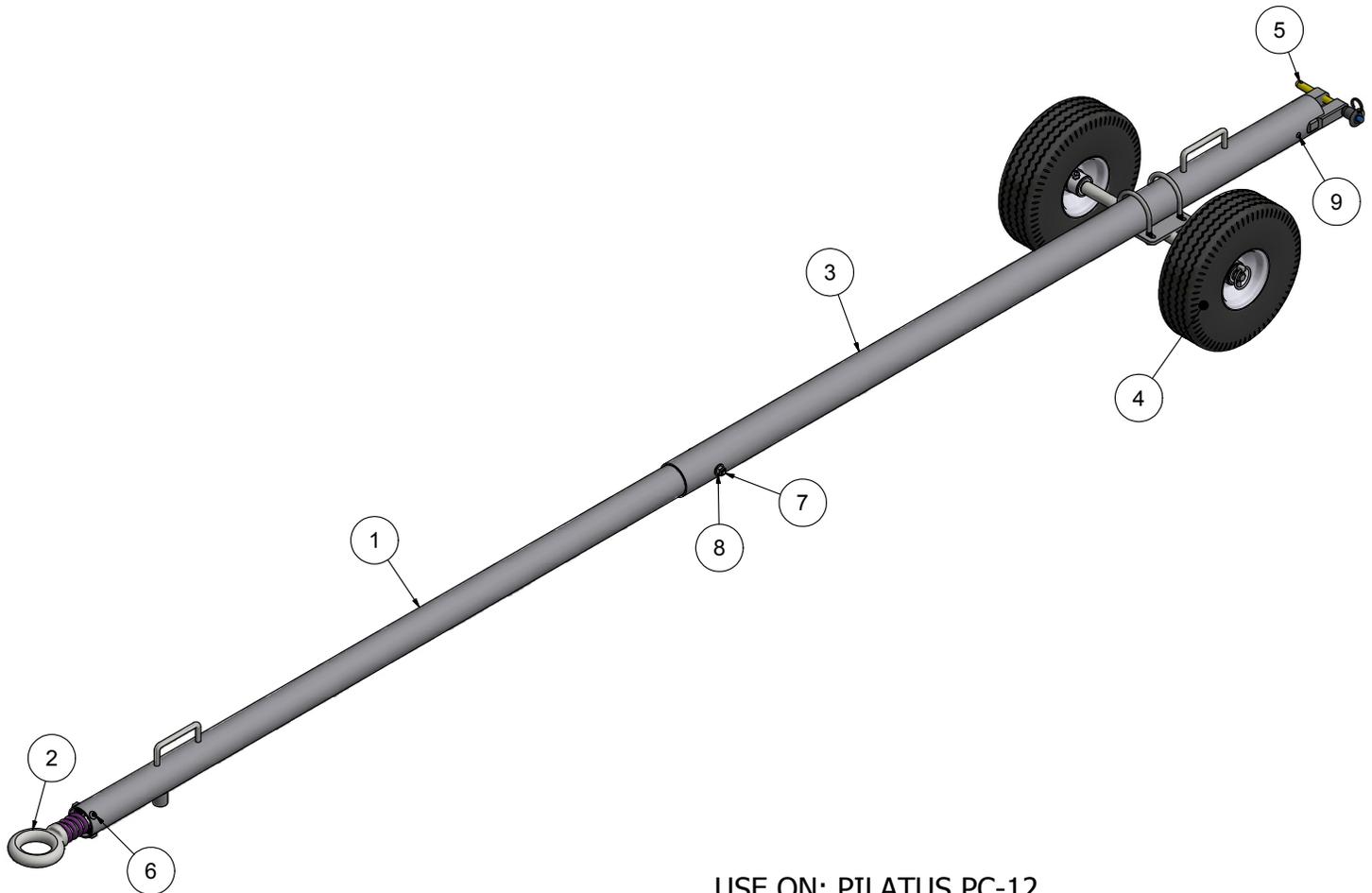




RL-PIL1 TOW BAR

STEEL TOW BAR WITH SHOCK RING AND WHEELS



USE ON: PILATUS PC-12
GTOW: 20,000 LBS.
LENGTH: 10'
COLOR: YELLOW
SHIPPING: 72" X 13" X 13" @ 64 LBS.

PARTS LIST

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	RL-05	TONGUE TUBE ASM.
2	1	RL-20PU	RING HITCH ASSEMBLY
3	1	RL-PIL1-02	TUBE ASM.
4	1	RL-4W	WHEEL KIT
5	1	CLM-12-BLPB-100-C	12 mm X 100 mm BALL LOCK PIN
6	4	92949A578	5/16-18 X 1/2 BUTTON HEAD CAP SCREW S.S.
7	1	91257A636	3/8-16 X 3 BOLT
8	1	92018A430	3/8-16 FLANGE LOCKNUT
9	1	92949A240	10-24 X 3/8 BHCS S.S.

ASSEMBLY INSTRUCTIONS

THIS IS A 2 PIECE TOWBAR

1. Assemble 2 pieces by sliding together and bolting – tighten bolts firmly.
2. Mount wheel plate 12” forward of rear yoke tube as shown in drawing. The wheels slide on and secure with a latch pin.

PRE-INSTALL CHECKLIST

1. Check frame to be straight. Wheels rotate freely. Check tires for wear, minimum 3/32 tread depth or replace.
2. Check hardware and secure, if missing replace with new.

OPERATION

1. Roll up to nose wheel axle and pull Ball Lock Pin (5) out. Lift the Towbar to the attach point and insert Ball Lock into the nose gear and Towbar.

Look around the aircraft and remove all ropes and chocks before moving.

MAINTENANCE

1. **SHOCK BALL HITCH:**

This hitch should not require much maintenance. Once a year grease and inspect internal parts.

- a. Inspect bolts and lock washers for tightness. Check for cracks around bolt holes in the frame.

2. **MAIN WHEEL ASSEMBLY:**

Requires little maintenance.

- a. Inspect wheels for tire wear. Replace when 25-35% worn, 3/32 tread depth. Check bearings for smoothness by hand rotating them. Look for cracks around welds on plate & axles. Check nuts on U-Bolts for tightness.

3. **FRAME:**

Check all welds for cracks or deformities due to overloads or impact loads.

- a. Secure all bolts. Paint areas of loose or missing paint to prevent corrosion.
- b. Lubricate slider pin, oil or grease annually or as needed.

Check all bolts and nut for security – DO NOT OVER TIGHTEN.

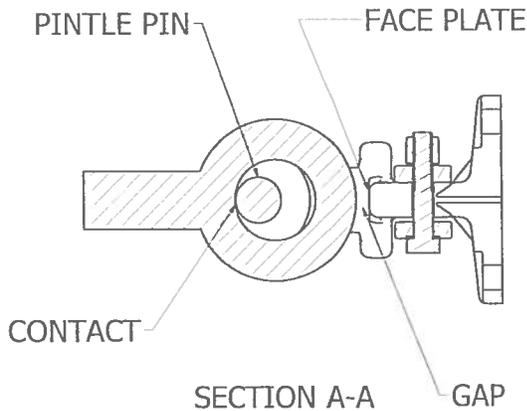


EYEBOLT AND PINTLE PIN SIZE:

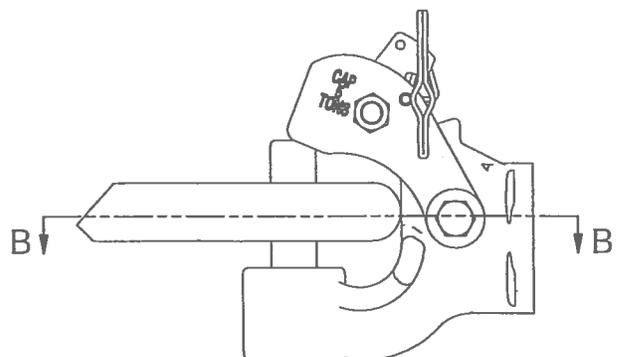
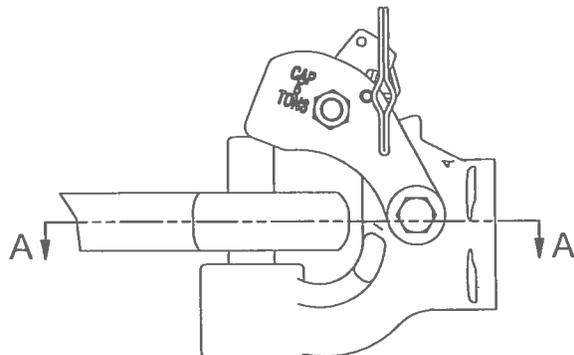
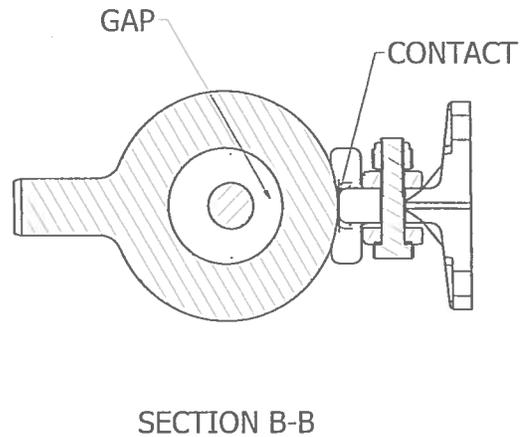
Damage to the tow bar or aircraft can result by towing or pushing an aircraft with an incorrect size eyebolt or pintle pin. A correct size eyebolt will make contact with the pintle pin. A gap between the eyebolt outside diameter and the coupler face plate should be easily seen. An eyebolt that is too large will cause the eyebolt to make contact with the face plate of the coupler. When the eyebolt is too large for the coupler, a gap between the inside diameter of the eyebolt and the pintle pin plate will be seen. (Detail B-B).

To ensure proper towing and pushing, check that the pintle pin diameter is not too large for the eyebolt's inside diameter. Approximately a one-half inch (1/2") gap between the pin diameter and the eyebolt I.D. should be seen. If any of these conditions are not met, please contact Brackett Aircraft for information to obtain a new coupler.

CORRECT



INCORRECT



ROBERT'S RULES FOR TOWING

1. INSPECTION

Prior to hooking up the Towbar to the tug, make a quick visual inspection of the Towbar. Check for a bent or damaged frame and for worn or missing parts. Check tire pressure. Check that you have the proper head installed. DO NOT attempt to tow any aircraft with a damaged or improper Towbar.

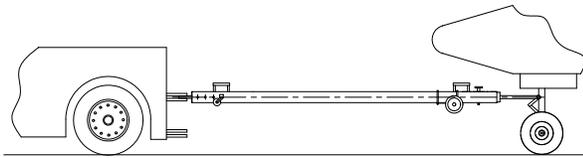
2. RESPONSIBILITY

Operator of the tug must understand that it is his/her responsibility to move the aircraft safely from "Point A" to "Point B". NO HOT RODDERS.

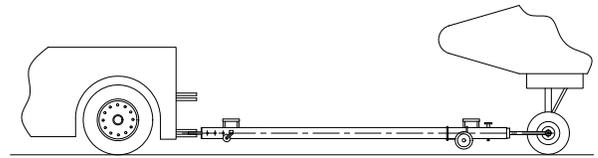
3. HOOK UP

When hooking the Towbar to the tug, three things are necessary:

1. The proper tug and Towbar for the size aircraft being moved.
2. The Towbar must be approximately level between the aircraft and the tug.
3. The hitch on the Towbar must move freely on the hitch mounted on the tug.



CORRECT



CORRECT

BASIC TOWING RULES

1. Prior to moving, make sure that full swivel release pins are released (if applicable). Also, double check that all the tie downs and chocks are removed, and aircraft brakes are released.
2. TOW SLOW, max speed, a brisk walk.
3. NOSE WHEEL TOWING LIMITS: Do not exceed towing limits. If not marked or not known, do not exceed 30° from center. Be extra cautious on snow and ice.
4. To prevent hangar rash when squeezing the birds together an extra set of eyes helps.
5. Push at a creep to minimize chance of jack-knife" Think Safety" and use common sense.

NOTE: Thousand of dollars in damage can occur in a few seconds while towing. It is estimated that 90% of towing damage is due to operator negligence. We all know when it's raining or -10° below zero and you're on an open tug it's tough to go at a walking speed.

**Thanks for reading the rules.
Roy Brackett, Brackett Aircraft Co., Inc.**